Income Contingent Loans as a Method for Funding Higher Education

Michael Hill

Murdoch University, Perth, Australia (m.hill@murdoch.edu.au)

Abstract: Maintaining a well resourced and productive Higher Education system is in the national interest of any country. However, in recent decades, many countries have failed to adequately match funding levels to the growth in demand for university places. Student funding via loans is becoming increasingly popular as a method to work around this problem. In particular, those in the category of Income Contingent Loans are growing in popularity. This paper explores their basis, advantages and disadvantages. A cross country comparison is made to rate different methods of funding. It is shown that Income Contingent Loans do seem to promise more than they deliver, and that a high level of direct government funding of Higher Education produces the greatest returns.

Keywords: Higher Education Funding; Income Contingent Loans.

1. INTRODUCTION

Moore (1983, page 213) makes the point that Higher Education is not a luxury, but required for a country to maintain its culture and standard of living. However, the past few decades have seen a global trend of decreasing government funding of Higher Education. (Marcucci and Johnstone, 2007, page 27) (Barr, 2004, page 3) Funding policies vary from country to country, and have undergone significant change within some countries within the past few decades. In many countries where education used to be free at the point of delivery, students are now being charged up front fees to attend university. (Daniel et al., 1999, page 7) (Vossensteyn, 1999, page 159) It has been acknowledged that education has changed from being something that is provided by the state for the benefit of the community, to more of a commercial product that is bought and sold, with the state being one of the purchasers.(Jarvis, 2004), (Tennant and Morris, 2001, page 47), (Beaver, 2008, page 220) Some of the countries in the EU have not moved away from state funding of university students. Despite a general trend towards higher fees, some European countries still do not charge fees. Where fees are charged, in 2002, they varied from around EUR112 (in France) to EUR3000. (Guille, 2002, page 418) In other locations students have always had to pay for their university education.

2. GRANTS AND LOANS

2.1 Overview

A number of countries have implemented government run and backed loan schemes to provide students with a means to cover these costs. (Albrecht and Ziderman, 1993) Government backed students loans have come about due to the problems of security with commercial lending to study. Historically, many of these have been of the mortgage type, where payments become due either when the loan is taken out, or as soon as the student leaves university (Albrecht and Ziderman, 1993, page 74).

2.2 Income Contingent Loans

Income Contingent Loans are an alternative to the mortgage type loans, where instead of being fixed in installment amount, or repayment period, repayments depend on the level of earnings of the debtor.

Nicholas Barr, of the LSE, is one of the advocates of Income Contingent Loans. (Barr, 1993) (Barr, 2004) While putting forward some positive aspects of Income Contingent Loans, he often glosses over the problems in a superficial manner, and introduces simplifications, which damage the credibility of his argument. For example, excluding the funding of research from consideration. Barr (2004) argues against having higher education free at the point of delivery, as it used to be, and continues to be the case with health care under the NHS, and also primary and secondary schooling in the UK.

In one paper, Barr (2004) considers methods of funding students through university study, and sets out a Higher Education funding scheme based on Income Contingent Loans.

He proposes a funding mechanism with 3 “legs” - Fees, Loans, and Promoting Access. The goal is to meet three issues: universities have too few resources, student support is inadequate, and access is unequal.

Many of the arguments used to support the ideas are inconsistent, illogical, and contradictory. In making the case that students, or graduates, must pay for higher education, he argues that higher education is not a commodity consumed by everyone. (Barr, 2004, page 4) This is invalid. You will not find a taxpayer anywhere who never benefits from the products of universities. However, this idea about placing the burden of funding Higher Education primarily onto students, or graduates, is widespread. (Daniel et al.,

1999, page 7) He claims that funding universities is as big a waste of money for taxpayers as giving the money to Microsoft. (Barr, 2004, page 4)

Barr (2004, page 20) claims that the Income Contingent Loan scheme is the cause of the increase of proportion of female students at university. This is not necessarily so, there may be other factors involved.

The proposal to remove the overall interest rate subsidy and replace it with a targeted one would introduce huge overheads and hence costs by adding administrative complexity. (Barr, 2004, page 25)

Proposed advantages of Income Contingent Loans include:

- Provide the borrower insurance against future inability to pay (Barr, 1993, page 721)
- The creation of a self-funding revolving scheme (Shen and Ziderman, 2009, page 330)
- Introduction of a method of cost sharing of course costs (Shen and Ziderman, 2009) (Shen and Ziderman, 2009, page 331)
- Improving access for disadvantaged groups (Shen and Ziderman, 2009, page 330)

The first one is of benefit to those with a high level of risk aversion. (Barr, 1993, page 721)

The second and third are intended to reduce the cost of the provision of higher education to the government, and hence, in theory, the taxpayer. The reality of Barr's scheme is that it is run at the cost of a selected set of taxpayers.

The fourth one has been shown to have not worked. (Birch and Miller, 2006, page 98)

Albrecht and Ziderman (1993) advocate loans to reconcile keeping higher education accessible and making students pay some of the costs. They examined 23 programs, and found that in some cases they turned out to be even more expensive than grants.

Using the argument that students are the direct beneficiaries of higher education, they state that they should be targeted as the obvious source of additional funds. (Albrecht and Ziderman, 1993, page 72) They advocate using Income Contingent Loans to preserve opportunities for students who cannot afford to pay. (Albrecht and Ziderman, 1993, page 72) They acknowledge that loans need to be backed by the government, due to this unwillingness of the banks to provide the loans, termed imperfections in the capital market. Intangible assets are not good collateral, and there is a high level of risk in making such loans. (Barr, 1993, page 721) They admit that loans are costly to administer. (Albrecht and Ziderman, 1993, page 73) Other issues mentioned are that poorer students are more risk averse, income based taxes discourage earnings, and that such schemes do not create revolving funds which finance themselves. (Albrecht and Ziderman, 1993, page 76) (Shen and Ziderman, 2009, page 330)

The claim is made that such schemes do not involve costly overheads. (Albrecht and Ziderman, 1993, page 77) This is not true (see below), and is in fact, one of the major disadvantages of them. The administration of Income Contingent Loans or Graduate Taxes, adds an extra layer of complexity, to the taxation system, and hence cost.

UK	87.81
Netherlands	98.45
Sweden	64.63
Germany	38.23
Czech Republic	108.37
Australia	74.30
New Zealand	58.88
USA	82.88
Nigeria	10.88

Table 1. Repayment Ratios for Selected Countries

In the examination of loan schemes in 23 different countries, they define two quantitative measures:
Loan Repayment Ratio
and
Cost Recovery Ratio

The first is the proportion of the loan paid back by the individual borrower, and the second is the proportion of the total amount spent which is recovered by the lender.

The Cost Recovery Ratios are presented in a table showing loss percentages, the lowest shown was Barbados, with a figure of 18%, which rose to 33% when defaults and administration costs were included. The highest was Venezuela, with a figure of 98%, which rose to 108% including those overheads.

The figures for Australia were 52%, and 57%, and for Sweden, 30%, and 33%. (Albrecht and Ziderman, 1993, page 80)

They stated that information about administration costs was difficult to obtain, and that figures that they did find showed that they varied greatly, between 0.5% of the amount of the debt, to 30% of that amount. Hence, in the calculations, a nominal value of 2% was used. (Albrecht and Ziderman, 1993, page 82) Thus, the extra losses actually encountered via the administration overheads will be much larger than the figures they present.

Citing defaults as a major cause of losses, they say that defaults can be reduced without introducing high administrative costs. (Albrecht and Ziderman, 1993, page 81) A very unlikely senario, given the figures that they displayed on the previous page.

In a follow up study to the one conducted by Albrecht and Ziderman (1993), Shen and Ziderman (2009), report that in student loan schemes in more than 70 countries surveyed, the repayment ratio is 40%, or less, in more than 40% of the schemes, and hence, the recovery ratio is much lower. They cite inefficiencies and high running costs as the main causes of these losses. (Shen and Ziderman, 2009, page 316)

The Loan Repayment Ratios and Cost Recovery Ratios for selected countries are shown in Table 1. Note the Czech Republic runs a very good scheme, where they aim to recover 108% of the amount lent. The Swedish scheme is fairly generous to the user, reclaiming only 64%. Compared with the earlier research, it was found that while repayment ratios had increased in the UK and US, it had decreased in Sweden.

Albrecht and Ziderman (1993, page 76) list Australia, Sweden, and Ghana as countries where Income Contingent Loans have been implemented. Shen and Ziderman (2009, page 319) list Australia, the UK, Ethiopia, Ghana, New Zealand, Sweden, and South Africa, as some of the countries using Income Contingent Loans. Thus, their application has been increasing. Income Contingent Loans were introduced into Australia in 1989 (Greenaway and Haynes, 2003, page 164), and in the UK in 1998 (Greenaway and Haynes, 2003, page 162).

2.3 Problems with Income Contingent Loans

One of the main justifications put forward for Income Contingent Loans is that they support the policy of increasing access to lower socio-economic groups. This has been shown to not be true. (Birch and Miller, 2006, page 98)

They introduce overheads, which devour a large amount of resources, for very little real returns. The cost put toward these resources could be much better used if it was put directly into the education system.

The idea that they would create a revolving, self-funding resource has been shown to not work in practice. (Ziderman, 2002, page 376)

There are social impacts, not taken into account by those who attempt to devise these clever schemes by looking only at financial justifications, based on simplications and approximations, which ignore important factors, such as defaults and the administrative costs of running a complicated scheme. Young graduates starting off their careers with a huge debt hanging over them, are restrained from purchasing property and having children, reflected in a decrease in the fertility rate. (Birch and Miller, 2006, page 98)

There is no evidence that default rates are lower with Income Contingent Loans than with mortgage type ones. (Shen and Ziderman, 2009, page 332)

3. ALTERNATIVE APPROACHES

3.1 Commercially Based Loan Schemes

In the United States, the student loan system has been based largely on the provision of services by private lenders since 1965. The major aim of introducing the scheme was to increase access to higher education. Due to the imperfections in the capital market, as outlined above, the government needed to set up a special system to make this work. The government offered a deal where they subsidized the loans to make the interest rate lower, paid the interest while the student was at college, and paid the debt if the student failed to pay it. These government incentives made it a very attractive business for commercial lenders. (Beaver, 2008, page 216)

A number of problems and issues have been identified with this approach. It has been found that the Department of Education has not provided adequate oversight and enforcement of the scheme, and there has been a high incidence of fraud and abuse within the system. By the early 1990s, student defaults were costing the scheme more than $13 billion, which was about half the total running cost to the government. A major contributing factor to this high loss was the fact that indemnifying the commercial lenders against losses from defaults, meant that the lenders had little or no incentive for chasing those who did not pay. An investigation by the General Accounting Office found that direct lending through the Department of Education would save the taxpayer about $1 billion per year. This resulted in direct lending by Department of Education being set up in competition to the service provided by the commercial lenders. This did result in some savings to students and their parents as the lenders offered discounts to gain more customers, but a result of the increased competition was more aggressive marketing, resulting in questionable relationships between lenders and colleges being formed, including the improper inducements to college staff by lenders, and college staff asking for payments from lenders to improve their chances of getting students to use them. (Beaver, 2008, page 217)

In 2006, the Office of Management and Budget, found that due to the inefficiencies of the system, having only direct lending by the Department of Education would result in an annual saving of $4.6 billion. Thus, a government run program can be more efficient than one which uses the private sector. (Beaver, 2008, page 219)

Another investigation was carried out by the Attorney General of New York, in 2007. By then the student loan business had become an $85 billion industry. The investigation found that there were many instances of those questionable relationships between lenders and colleges. One of the outcomes of the investigation was the setting up of a fund at the cost of $13,7 million to pay for the education of students and their parents about loans, in the hope that with better knowledge, they, as the customers, would be better able to choose an option that was serving their needs better, rather than just being a more profitable option for their lender. (Beaver, 2008, page 218)

In any system where there is a middle man making a profit, there is going to be an extra expense to someone. Profits do not come from nowhere. Hence, direct government funding should always be more economical. (Beaver, 2008, page 220)

4. COUNTRY COMPARISON

Countries concentrated on here are, the UK, the US, Sweden, the Netherlands, and Australia. This was done as there is good information available about them, and they highlight different policies of funding.

4.1 Funding

The OECD average for expenditure on education, in 2002, was around 7% of GDP. (Guille, 2002, page 417)

Finance is available to students in the form of both grants and loans.

Table 2 shows some information about different countries (Guille, 2002, pages 424 to 426). MT indicates Means-Tested, and ICL is an Income Contingent Loan.

(Guille, 2002, page 429) considers that different systems in different countries are unworkable in the EU with

Country	Method	Attributes
France	Grant	MT
UK	Loan	partly MT ICL
Germany	Loan/Grant (50/50)	MT
Sweden	Loan/Grant (28/72)	ICL
Denmark	Loan/Grant (66/34)	
Nederlands	Loan/Grant (69/31)	
Norway	Loan/Grant (24/76)	

Table 2. Funding Methods by Country

UK	84
Netherlands	73
Sweden	131
France	30
Greece	15
Germany	86

Table 3. Level of Student Support

such easy movement of students. This further complicates the problems governments face when trying to determine funding policies for Higher Education. (Daniel et al., 1999, page 7)

The introduction of loans has seen a drop in student numbers in the Netherlands due to loan resistance. (Guille, 2002, page 428)

In a study of the European countries, and Switzerland, Daniel et al. (1999), found that government financial support for students, as a percentage of their actual expenditiure, varied from 15% in Greece, to 131% in Sweden. (Daniel et al., 1999, page 11)

Levels of student support for some of the EU countries are shown in Table 3 (Daniel et al., 1999, page 11)

In another set of figures, (Vossensteyn, 1999, page 166), reported that in Sweden, all students were eligable for a non-means-tested grant, that covered 26% of their living expenses, whereas, in the UK, a grant covering 41% of living expenses was available, but was means-tested. The respective figures for proportion of living costs covered by the loans available, were, 67% for Sweden, and 30% for the UK.

4.2 Performance

Man et al. (2004) compared a number of countries on the basis of research ranking, looking at publication rates in high ranking medical journals, between 1997 and 2001. Source country was determined by the country of the corresponding author. They found that there was a strong correlation between research spending and research output, and also that English language proficiency was an important factor. (The journals considered were all English language ones.)

"*Without a sufficient and stable source of funding, excellent research is difficult, if not impossible, to achieve*" (Man et al., 2004, page 811)

Using standardized publication rates to adjust for population sizes, and standardized research spending, adjusted for GDP, the rankings were determined.

Research Rankings for a selection of countries are shown in Table 4 (Man et al., 2004, page 813)

2	UK
5	Netherlands
6	Sweden
7	US
9	Australia
14	Germany

Table 4. Country Research Ranking

Sweden	1
US	5
Germany	6
Netherlands	8
UK	11
Australia	13

Table 5. Research Spending Ranking

Sweden	28.1
UK	22.1
Netherlands	14.6
US	12.0

Table 6. Percentage of graduates in STEM subjects

A 1% increase in research spending was found to be associated with a 2.17 increase in publication rate. (Man et al., 2004, page 813)

Research Spending Rankings are shown in Table 5 (Man et al., 2004, page 814)

A study by van Langen and Dekkers (2005) considered cross national differences in university student participation in Science, Technology, Engineering and Mathematics education (STEM). They noted that there had been a decrease in the supply of STEM personnel in recent years, and wanted to determine how education policy effects how many students enter and complete STEM courses. (van Langen and Dekkers, 2005, page 330)

They conducted an in depth study in four countries: UK, US, Netherlands, and Sweden.

Percentage figures for the four countries are shown in Table 6, from van Langen and Dekkers (2005, page 334)

This ranking correlates with financial support. (van Langen and Dekkers, 2005, page 345)

STEM courses generally take more time than others, and the extended time can put students off due to the costs involved. Also drop out rates are high. Thus in countries where studying is more expensive, this makes these courses less favourable. (van Langen and Dekkers, 2005, page 339)

In Sweden no tuition fees are charged, and financial support is good. In the US, it is expensive. People are unwilling to take out loans. In the UK, as in the Netherlands, student debt has increased recently. The better performance of the UK is attributed to a higher amount of student teacher contact time in the UK. (van Langen and Dekkers, 2005, page 340)

5. DISCUSSION

In both the STEM and medical research ratings, we see Sweden ahead of the US. Sweden does not charge

university fees, but provides Income Contingent Loans only for living expenses.

Graduate Taxes, or Income Contingent Loans, are handled via the tax system, with the same result of the more you earn, the more you pay. This how normal taxation works. The only difference is the higher overheads involved in collecting them as separate taxes. They therefore introduce extra administrative costs, and more inefficiency.

The lowering of the fertility rate, associated with graduate indebtedness has the potential for the creation of a demographic disaster. It is this sort of major side effect that the planners of such schemes are unable to forsee.

Means-Testing is a widely applied method. It discriminates against those students whose parents have made the effort to work hard to pay the taxes which provide the money to fund the grants. It thus implements a system where those who contribute the most, benefit the least. As well as being immoral and unfair (those who pay for a public service to be provided, should not be denied access to it), this creates unnecessary and inefficient overheads. A better system would be to give the grants to all the students, irrespective of how much their parents are contributing towards funding them, and remove the waste of paying extra administrative staff who spend their time deciding who does and who does not receive support.

6. CONCLUSION

The Income Contingent Loans scheme presents a number of attractions, and on a superficial consideration seems almost ideal. However, in reality there are a number of serious drawbacks associated with them. Mainly, the fact that most schemes have major overheads associated with them. The simplest and most efficient method of university funding does seem to be adequate direct government support for the institutions, and suitable support for students via student grants. Providing universities with adequate funding is in the national interest, and should be properly planned for, and budgeted for by the government. Sweden is a good example where the policies for the funding of Higher Education are working well. While they do have an Income Contingent Loans scheme in place in Sweden, there are no university fees, and generous grants are available on top of it.

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